

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2004/002590

## A. CLASSIFICATION OF SUBJECT MATTER

**IPC7 A61K 31/56**

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 A61K 31/56

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Korean patents and applications for inventions since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Pubmed [(ursolic acid OR hederagenin OR oleanolic acid) AND (Alzheimer OR Brain OR neuron?)]

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CHUNG et al., 'Inhibitory effect of ursolic acid purified from Origanum majorana L. on the acetylcholinesterase.', Molecules and Cells, 30 Apr. 2001, Vol.11(2), pp.137-143 See abstract and Fig.6.	1 - 5
X	HEO et al., 'Ursolic acid of Origanum majorana L. reduces Abeta-induced ixudative injury', Molecules and Cells, 28 Feb. 2002, Vol.13(1), pp.5-11 See abstract.	1 - 5
X	KR 2003-0042123 A (KOREA RESEARCH INSTITUTE OF BIOSCIENCE AND BIOTECHNOLOGY) 28 May 2003 See abstract and page 6, lines 25-26.	1 - 5
P, X	SHIH et al., 'Ursolic acid protects hippocampal neurons against kainate-induced excitotoxicity in rats.', Neuroscience Letters, 20 May 2004, Vol.362(2), pp.136-140 See abstract.	1 - 5
A	KITANI et al., 'Pharmacological modifications of endogenous antioxidant enzymes with special reference to the effects of deprenyl: a possible antioxidant strategy', Mechanisms of Ageing and Development, Nov. 1999, Vol.111(2-3), pp.211-221 See the whole document.	1 - 5

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance  
 "E" earlier application or patent but published on or after the international filing date  
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)  
 "O" document referring to an oral disclosure, use, exhibition or other means  
 "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
 "&" document member of the same patent family

Date of the actual completion of the international search

13 DECEMBER 2004 (13.12.2004)

Date of mailing of the international search report

**14 DECEMBER 2004 (14.12.2004)**

Name and mailing address of the ISA/KR



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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6607758 B2 (UNIVERSITY OF WASHINGTON) 19 Aug. 2003 See the whole document.	1 - 5
A	US 2002/0042535 A1 (TRUSTEES OF DARTMOUTH COLLEGE) 11 Apr. 2002 See the whole document.	1 - 5

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

PCT/KR2004/002590

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR 2003-0042123 A	28.05.2003	None	
US 6607758 B2	19.08.2003	WO 9851302 A1	19.11.1998
		WO 0033659 A1	15.06.2000
		US 20040086585 A1	06.05.2004
		JP 2002508752 T2	19.03.2002
		EP 1377287 A2	07.01.2004
		EP 1335738 A2	20.08.2003
		CA 2441099 AA	03.10.2002
		AU 7580098 A1	08.12.1998
US 2002/0042535 A1	11.04.2002	WO 9965478 A1	23.12.1999
		US 6552075 B2	22.04.2003
		US 6326507 A	04.12.2001
		JP 2002530272 T2	17.09.2002
		EP 1089724 A4	09.06.2004
		EP 1089724 A1	11.04.2001
		CA 2335505 AA	23.12.1999